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## SUMMARY OF SAFETY AND EFFECTIVENESS

1. Device Name:

Magnetic Resonance Imaging Accessory

2. Proprietary Name:

Flow 7000 Peripheral Vascular Coil

3. Classification:

Class II

4. Establishment Registration #:

1529041

5. Manufacture Facility Location:

USA Instruments, Inc., 1515 Danner Drive,

Aurora, Ohio 44202, USA

Telephone: 330-562-1000; Fax: 330-562-1422.

6. Performance Standard:

No applicable performance standards have been issued under Section 514 of the Food, Drug and Cosmetic Act.

7. Intended Use:

The Flow 7000 Peripheral Vascular Coil is a receive-only phased array RF coil, used for obtaining diagnostic images of the vasculature and soft tissue anatomy, extending from the abdomen to the foot region in Magnetic Resonance Imaging Systems. The indications for use are the same as for standard MR Imaging. The Flow 7000 Peripheral Vascular Coil is designed for use with the 1.5T Intera<sup>TM</sup> MRI scanner manufactured by

Philips Medical Systems.

8. Device Description:

The Flow 7000 Peripheral Vascular Coil is a 12 element phased array, receive-only coil. The coil consists of two sections: an upper and lower section, which are positioned above and below the patient's body (lower torso and legs). The coil sections, which contain the coil elements and accessory coil electronics, are enclosed to prevent any exposure to the patient or environment. The coil electronics are enclosed in both the rigid PVC spine and the vinyl coated PVC foam in the lower coil section, while the upper section coil electronics are enclosed in the rigid PVC spine.

## 9.Safety and Effectiveness

Flow 7000 Phased Array Peripheral Vascular Coil Produce Features	Comparison to Predicate or other 510(k) Cleared Device
Intended Use Imaging of vasculature and tissue extending from the torso to the feet.	-Similar to the Flow 7000 Peripheral Vascular Coil manufactured by USA Instruments, Inc. (K982339)
Indications for Use Identical to routine MRI imaging	-Similar to the Flow 7000 Peripheral Vascular Coil manufactured by USA Instruments, Inc. (K982339)
Coil Material Flame Retardant PVC Plastic alloy Flame retardant Mylar Plastic Flame retardant Vinyl coated PVC foam	-Similar to the Flow 7000 Peripheral Vascular Coil manufactured by USA Instruments, Inc. (K982339) -Similar to the Profile 7000 Volume Neck Coil manufactured by USA Instruments (K964531)
Coil Design Receive-only phased array design	-Similar to the Flow 7000 Peripheral Vascular Coil manufactured by USA Instruments, Inc. (K982339) -Similar to the Phased Array C/T/L Spine Coil manufactured by USA Instruments (K980157)
<b>Decoupling</b> RF Chokes with Switching Diodes	-Similar to the Flow 7000 Peripheral Vascular Coil manufactured by USA Instruments, Inc. (K982339)
Prevention of RF Burns Does not transmit RF Power, Decoupling isolates the coil elements from RF fields during RF transmission, Coil elements and circuitry are enclosed in a non-conductive housing.	-Similar to the Flow 7000 Peripheral Vascular Coil manufactured by USA Instruments, Inc. (K982339)
Radio Frequency Absorption Coil is a receive only coil and does not transmit RF power	-Similar to the Flow 7000 Peripheral Vascular Coil manufactured by USA Instruments, Inc. (K982339)
Formation of Resonant Loops Decoupling isolates coil elements from RF fields during RF transmission, length of cable and stiffness does not permit looping	-Similar to the Flow 7000 Peripheral Vascular Coil manufactured by USA Instruments, Inc. (K982339)



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Food and Drug Administration 9200 Corporate Boulevard Rockville MD 20850

Mr. Rony Thomas
Vice President, Marketing and Programs
USA Instruments, Inc.
1515 Danner Drive
AURORA OH 44202

Re: K010730

Flow 7000 Peripheral Vascular Coil

Dated: March 7, 2001 Received: March 12, 2001 Regulatory class: II

21 CFR 892.1000/Procode: 90 MOS

## Dear Mr. Thomas:

We have reviewed your Section 510(k) notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (Premarket Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895. A substantially equivalent determination assumes compliance with the Current Good Manufacturing Practice requirements, as set forth in the Quality System Regulation (QS) for Medical Devices: General regulation (21 CFR Part 820) and that, through periodic QS inspections, the Food and Drug Administration (FDA) will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory action. In addition, FDA may publish further announcements concerning your device in the Federal Register. Please note: this response to your premarket notification submission does not affect any obligation you might have under sections 531 through 542 of the Act for devices under the Electronic Product Radiation Control provisions, or other Federal laws or regulations.

This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4639. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its internet address "http://www.fda.gov/cdrh/dsma/dsmamain.html".

Sincerely yours,

Nancy C. Brogdon

Director, Division of Reproductive, Abdominal, and Radiological Devices

Office of Device Evaluation

Center for Devices and Radiological Health

510(k) Number (if known): 10730
Device Name: Flow 7000 Phased Array Peripheral Vascular Coil
Indications for Use: The Flow 7000 Phased Array Peripheral Vascular Coil is designed to provide Magnetic Resonance Images of the abdominal aorta, peripheral vasculature and soft tissue anatomy. The Premier 7000 Phased Array Spine Coil is designed for use with the Philips Medical Systems Intera 1.5T scanner.
Anatomic Regions: Abdominal Vasculature, Peripheral Vasculature and soft tissue Nuclei Excited: Hydrogen
The indications for use are the same as for standard imaging:
The Intera 1.5T system is indicated for use as an NMR device that produces images that: (1) correspond to the distribution of protons exhibiting NMR signal, (2) depend upon NMR parameters (proton density, spin lattice relaxation time T1, spin-spin relaxation time T2) and (3) display the soft tissue structure of the head and whole body. When interpreted by a trained physician, these images yield information that can be useful in the determination of a diagnosis.
(PLEASE DO NOT WRITE BELOW THIS LINE- CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE)
Prescription Use OR Over-The-Counter Use (Per 21 CFR 801.109) (Optional Format 1-2-96)
(Sp. 21 C. 1 C. 1

(Division Sign-Off)
Division of Reproductive, Abdominal, ENT, and Radiological Devices
510(k) Number / 0/0730